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Closing the 911 Funding Gap: Increasing Revenues for 911 Emergency Dispatch Centers

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Abstract

Since their introduction, 911 services have grown both in geographic scope and in the level of service provided. The revenue used to fund 911 services consists almost entirely of fees and surcharges on wireline, wireless, and Voice-over-Internet-Protocol telephone lines. These fees and surcharges generate billions of dollars each year, but 911 service revenues still fall short of estimated annual costs. Expenditures for personnel and for technology maintenance and upgrades have also increased over time. American consumers' use of telephone lines has shifted from primarily wireline telephone lines to primarily wireless and Internet-based telephone lines with smaller fees and surcharges, contributing to the funding gap. To address this gap, federal, state, and local authorities must respond. The federal government can update the funding framework to give additional regulatory power to the states, and it can also make more grant funding available. State authorities can increase existing 911 fees and surcharges and implement new 911 fees and surcharges on products and services that can request emergency responses. Local governments can seek alternative revenue sources such as grants and local fees, and individual dispatch centers can proactively budget their existing funds.

Introduction

While the American public now expects to be able to call 911 for emergency assistance, the ability to dial a three-digit number for help is a relatively recent technological innovation. The first proposal for a national emergency telephone number came in 1957 from the National Association of Fire Chiefs, who wanted a single number that could be used to report fires.¹ A decade later the President's Commission on Law Enforcement and Administration proposed creating one number that could be used nationwide for all emergency situations.² After meeting with the Federal Communications Commission, AT&T announced in 1968 that it would create 911 as the emergency phone number for the United States.³ The first 911 call occurred in Haleyville, Alabama, in February 1968, and 911 services have since expanded to cover about 96% of the geographic United States.⁴

When a caller dials 911, telephone technology routes the call to a public safety answering point, or PSAP. Primary PSAPs have 911 calls routed to them directly, and secondary PSAPs have calls transferred to them from primary PSAPs.⁵ According to the most recent survey from the FCC, the United States and its territories and jurisdictions contain more than 5,200 primary and secondary PSAPs.⁶ State and local authorities operate these various PSAPs, and they are responsible both for providing and upgrading 911 services.⁷

State and local authorities fund these dispatch centers through budget allocations and revenue collected through 911 and Enhanced 911 (E911) fees on wireline, wireless, and Voice-over-Internet-Protocol (VOIP) telephone lines. These revenues fluctuate over time depending on how consumers use various telephone technologies. In 2017, states, territories, and jurisdictions

reported to the FCC that they collected more than \$2.9 billion in revenue from these fees, and about 90.3% percent of that revenue was spent directly to provide 911 emergency services.⁸ In that same calendar year, the FCC collected data indicating state and local authorities spend more than \$4.8 billion providing 911 emergency services.⁹ This data indicates a funding gap of at least \$1.9 billion from 911/E911 fees which must be closed by state and local governments.

The involvement of federal, state, and local authorities in funding and providing 911 emergency services means there is not a simple, universal solution to help all agencies easily bridge this gap in funding. However, steps can be taken at federal, state, and local levels to increase 911 service revenues and to minimize this budget volatility. The federal framework can be modified to increase funding for 911 services, state governments can authorize increases to 911 surcharges, and local authorities can proactively budget to maximize the impact of their revenue.

Current Practices

Revenue Sources for 911 Services

The Federal Communications Commission gathers annual data about state collection of 911 revenues and state expenditures for 911 services as required by the New and Emerging Technologies 911 Improvement Act of 2008 (NET 911 Act).¹⁰ The report compiled for calendar year 2017, the “Tenth Annual Report to Congress on State Collection and Distribution of 911 and Enhanced 911 Fees and Charges,” marks the first time all 50 states and six other jurisdictions and territories responded to the FCC’s survey.¹¹ Examining this report and the data compiled for it provides a glimpse into how the current funding system for 911 services is working.

As explained in the report, the NET 911 Act “affirms the ability of [a state or political subdivision] to collect fees or charges . . . ‘for the support or implementation of 911 or enhanced 911 services, provided that the fee or charge is obligated or expended only in support of 911 and enhanced 911 services, or enhancements of such services, as specified in the provision of State or local law adopting the fee or charge.’”¹² In other words, the federal government confirmed in the NET 911 Act that state and local authorities have the ability to adopt fees for wireline, wireless, and VOIP telephone services. When state or local authorities adopt 911 fees, they must also specify how those funds may be used. According to the report, “states determine how 911/E911 fee revenues are to be spent based on individual states’ definitions of permissible expenditures that vary considerably.”¹³

For 2017, the report explains that “49 states, the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands affirmed that their state or jurisdiction has established a funding mechanism designated for . . . the purposes of 911 or E911 support or implementation.”¹⁴ Missouri, the one state that does not have a state funding mechanism, reported all of its PSAPs are funded by local jurisdictions.¹⁵ Twenty-seven states and four territories reported collecting “all 911 fees on a statewide basis, with the collected funds administered by the state,” four states reported 911 fees collected “exclusively at the local level,” and 18 states reported “a hybrid approach to 911 fee collection, in which state and local governing bodies share authority over fee collection from customers.”¹⁶

The actual 911 fees and surcharges for wireline, wireless, VOIP, and other telephone services can vary from state to state and from one local jurisdiction to another. The report explains: “Based on responding states’ information, the average wireline 911 fee is \$1.04 per line per month; the average wireless 911 fee is \$0.97 per line per month; the average prepaid wireless percentage

of retail transaction 911 fee is 2.12%; the average prepaid wireless flat 911 fee per transaction is \$0.87; the average VOIP service 911 fee is \$0.99 per line per month.”¹⁷ While these individual fees may seem small, they result in millions of dollars of revenue for individual states. Table 1 lists the total reported 911 fees collected by all states and U.S. jurisdictions from calendar years 2009 to 2017 as listed in the FCC’s report.

Table 1: Collected State 911 Fees Over Time¹⁸

Calendar Year	Total Collected State 911 Fees
2009	\$1,749,609,554
2010	\$2,002,117,111
2011	\$2,149,689,191
2012	\$2,322,983,616
2013	\$2,404,510,788
2014	\$2,527,625,361
2015	\$2,631,705,009
2016	\$2,763,916,948
2017	\$2,937,108,458

While the table may appear to show a significant increase in collected 911 fees in the last decade, many of the totals compiled in previous FCC reports are based on incomplete information. For example, four states or territories did not provide the FCC with any information for calendar year 2009, and 11 states or territories that provided partial information for 2009 did not provide the total amount of 911 fees collected for their state.¹⁹ More recent reports have more complete information, although some states still have not provided specific information about collected 911 fees.

Because the national data is incomplete, examining data reported by a single state may show a more accurate picture of collected 911 fees over time. Table 2 lists the total reported 911 fees collected by Texas in the previous decade. While the table demonstrates that the total amount collected by the state has increased, it also shows the year-to-year volatility of 911 revenue.

Table 2: Texas’ Collected 911 Fees Over Time²⁰

Calendar Year	Total Collected 911 Fees by Texas
2009	\$203,547,360
2010	\$199,025,787
2011	\$209,202,098
2012	\$212,788,623
2013	\$213,215,483
2014	\$208,478,516
2015	\$222,938,735
2016	\$223,315,125
2017	\$219,673,860

Some states reported 911 fees as their only source of revenue for 911 services, but many states reported that local authorities combine 911 fees with local government general fund

allocations. For example, Georgia reported to the FCC: “Most local governments have to supplement the operation of their PSAPs because the locally and state collected 911 fees do not cover its operations.”²¹

Increasing Costs of 911 Dispatch

When 911 was first implemented as an emergency number, individual PSAPs could only offer basic voice-based services.²² As technology advanced, dispatch centers updated their services to provide Enhanced 911, incorporating automatic number identification and automatic location information to help identify and locate callers.²³ Many callers now take for granted that dispatch centers can quickly find their approximate location based on information provided by their wireless phones.

Many dispatch centers are now upgrading services again to provide Next Generation 911 services (NG911). According to the FCC, NG911 “uses Internet Protocol-based technology to deliver and process 911 traffic” to “support not only traditional voice 911 calls but also the transmission of text, photos, videos, and data.”²⁴ The implementation of this technology comes at a significant cost. A federal government report to Congress estimated a nationwide implementation cost of between \$9.5 and 12.7 billion over a ten-year period and a combined “lifecycle cost estimate” for local, state and federal agencies of between \$13.5 and 16 billion.²⁵ This cost is in addition to normal operating costs for dispatch centers.

In addition to technology, personnel costs are also significant expenditures for dispatch centers. States reported to the FCC employing more than 39,100 full-time dispatchers and 3,600 part-time dispatchers in the United States funded through 911 fees.²⁶ Those estimates do not include dispatchers who are funded through local government allocations. The U.S. Department of Labor calculated the median annual salary for police, fire, and ambulance dispatchers in 2018 as about \$40,660,²⁷ an increase of about \$1,000 compared to the median annual salary calculated for 2017.²⁸ Many dispatch centers operate 24 hours a day every day, frequently requiring dispatchers to work overtime to meet minimum staffing requirements and further increasing the cost of personnel.

Table 3 lists the total costs of providing 911 services as reported to the FCC by U.S. states and territories in the last four years. Like the table of total collected fees, a significant portion of the increase results from more jurisdictions providing data to the FCC. However, it also demonstrates the overall increase in costs.

Table 3: Reported Expenses of 911 Services Over Time

Calendar Year	Total Reported Expense of 911 Services
2014 ²⁹	\$3,123,229,093
2015 ³⁰	\$3,278,446,067
2016 ³¹	\$3,492,515,691
2017 ³²	\$4,800,557,445

Technological Shift from Wireline to Wireless/VOIP Services

When 911 emergency services were first implemented in 1968, wireline telephone lines were the only way to call for assistance. Since then, new telephone technologies – such as wireless

cell phones and Internet-based VOIP phone lines – have been introduced and widely adopted by consumers. A growing number of people now only use wireless or Internet-based phone lines.

The National Center for Health Statistics, part of the United States Centers for Disease Control and Prevention, compiles biannual reports calculating and documenting the percentage of Americans who use only wireless telephone service. Their researchers began asking about telephone services in 2003. According to their data, the number of American adults who use only wireless service has grown from about 3% in 2003 to about 55% in the first half of 2018.³³ This trend is likely to continue as younger adults are significantly more likely to use only wireless service. According to the report, “more than three in four adults aged 25-34 (77.3%), and a similar percentage of adults renting their homes (74.4%), were living in wireless-only households.”³⁴

Emergency call information provided to the FCC also demonstrates the growing use of wireless and VOIP phone services. Forty-four states and four other jurisdictions or territories reported receiving more than 222 million 911 calls in 2017.³⁵ About 70% of those calls were made on wireless phones.³⁶ Meanwhile, the number of 911 calls from VOIP phone lines increased by 135% from 2016.³⁷ Table 4 lists the total number of 911 calls by phone service in 2017 as reported to the FCC.

Table 4: 911 Calls by Type of Service in 2017³⁸

Type of Service	Number of 911 calls in 2017
Wireline	37,222,668
Wireless	155,231,318
VOIP	7,666,958
Other	8,907,760
Total	222,097,267

Problem: Insufficient Revenue to Cover Increasing Expenses

Increased reliance on wireless and VOIP telephone lines over wireline telephone lines is a contributing factor to the gap between 911 fee revenue and estimated 911 service costs. The national average 911 fees for wireless telephone lines and VOIP telephone lines are smaller than the national average 911 fee for wireline telephone lines.³⁹ The current trend of consumers moving away from wireline telephone service means 911 fees collected from wirelines will likely decline, even if the fee for that service is raised. According to the Pew Research Center, about 95% of Americans own wireless telephones.⁴⁰ With such a high percentage of consumers already using wireless telephone services, the number of people paying wireless 911 fees is unlikely to see noteworthy growth.

Given the disparity between 911 fee revenue and the estimated costs for 911 services and upgrades, federal, state, and local authorities must be prepared to review their roles in both funding and covering the costs of emergency dispatch. Steps can be taken at every level to help ease the existing funding gap.

Potential Solutions

Federal Response

As the federal government establishes the framework used by state and local authorities to fund 911 services, the U.S. Congress must play a role in improving the current funding situation. Congress can update the funding framework to allow state and local authorities to collect more revenue, and Congress can also authorize more federal grant funds for service upgrades.

Congress has previously passed several pieces of legislation impacting 911 services. In 1999, the Wireless Communications and Public Safety Act mandated 911 as the nation's official emergency telephone number and directed the FCC to work with states to implement Enhanced 911 services.⁴¹ In 2004, the Ensuring Needed Help Arrives Near Callers Employing 911 Act "addressed numerous concerns that had been raised about 911 deployment, including compliance, coverage in rural areas, and the use of fees levied by states and localities to cover 911 service costs."⁴² In 2008, the New and Emerging Technologies 911 Improvement Act confirmed the rights of state and local authorities to charge 911 service fees and the FCC's "authority to regulate the provision of 911 by VOIP service providers."⁴³ In 2012, the Next Generation 911 Advancement Act (NG911 Act) took multiple steps to advance the progress of Next Generation 911 services, including establishing a matching grant program for NG911 implementation.⁴⁴ This legislation demonstrates that Congress has not shied away from addressing 911 services and funding in the past.

The NG911 Act also mandated that the FCC prepare a report of recommendations for further changes to the legal framework for NG911 services, which the agency presented in 2013. In the report, the FCC made several recommendations specifically about funding, such as "[creating] incentives for states to become 'early adopters' of NG911" and "[promoting] a consistent nationwide approach to key elements of NG911 deployment, including ... reforms to the NG911 funding structure."⁴⁵ Reacting to this report and to the current state of funding for 911 services, James E. Holloway argues that states should be given more power to implement different types or additional "911 taxes, surcharges or fees on wireline and wireless subscriber lines and other means of communications" that could call 911.⁴⁶ Holloway writes: "One can use this report to determine the extent of the revisions to the federal state E911 funding arrangement, and, in fact, the report urges federal policy-makers to consider new sources of 911 funds," such as fees on security systems and vehicles that can call for emergency assistance.⁴⁷

Congress has the authority to modify the framework to give states more power in this regard. However, Holloway, Seeman, and Kleckley write that "a one-size-fits-all federal-state arrangement may prove unworkable among the states, thus creating the need for a flexible, forward-looking federal-state NG911 funding arrangement."⁴⁸ They continue: "The sheer number of PSAPs and complexity of a NG911 system ... points to a need for a federal NG911 funding mechanism that ensures the states share regulatory power to collect and manage 911 funds."⁴⁹

The federal government must act in order to help state and local authorities fund both 911 services and the required upgrade to NG911 capabilities. Choosing not to act would limit the ability of states and individual PSAPs to respond to increasing costs.

State Response

States and other U.S. jurisdictions have the authority to implement 911 surcharges and fees, and they have the authority to alter those surcharges and fees as necessary. Increasing these rates, especially on wireless phone lines, may be the best way for states to shrink the gap between 911 revenues and expenditures.

Many states already routinely review and change their 911 revenue mechanism. For example, North Carolina authorized a funding study beginning in 2009 to gather data related to Enhanced 911 costs and how the state was distributing 911 revenues.⁵⁰ In 2017, eight states and two territories reported to the FCC increasing their 911 surcharges and fees or altering their funding mechanism in some way.⁵¹ Some of these changes are clearly intended to increase 911 revenues. For example, Illinois increased its monthly surcharge for wireline, VOIP, and wireless telephone lines from \$0.87 to \$1.50,⁵² and New Mexico passed legislation to implement surcharges to VOIP telephone lines and a fee to prepaid wireless telephone transactions.⁵³

Many states have already implemented fees and surcharges for VOIP telephone lines in an effort to increase revenues. Prior to 2005, VOIP providers were not actually required to allow users to call 911.⁵⁴ Even after the FCC required some VOIP providers to provide 911 access, users did not automatically have a monthly surcharge or fee for 911 services included in their bills.⁵⁵ California began requiring 911 surcharges for VOIP lines in 2009. In her analysis of the California legislation, Kara Rosenberg Cain wrote that “[the legislation] remedies the growing inequity stemming from the fact that VOIP service providers are not required to contribute to the 911 fund, especially given the increased popularity of the technology.”⁵⁶

Because the vast majority of consumers already own wireless cell phones, modest increases to wireless surcharges and fees could produce noticeable impacts on state 911 revenues. As such, lawmakers should seriously consider increasing wireless surcharges and fees as part of any effort to increase 911 revenues. If the federal government provides additional regulatory power to states, introducing fees or surcharges onto new products, such as security systems and vehicles that can contact emergency services, could also produce additional revenue.

Local Response

While federal and state authorities have the ability to broaden funding options and increase 911 fees and surcharges, most local jurisdictions have more limited power to increase their revenues. To supplement 911 revenues, local jurisdictions can apply for some federal and state grants as well as create new revenue sources. Individual agencies must also proactively budget the funds they already possess.

Applying for federal or state grants may not be a realistic option for many agencies. In 2017, 28 states and two territories reported not using grant funding for 911 services.⁵⁷ Grants frequently have extensive reporting requirements that may be too much for some agencies to handle. However, grants can also provide essential additional funding. For example, Maryland estimated about 12% of its 911 service costs were covered by state grants in 2017, and Hawaii estimated about 4% of its 911 service costs were covered by federal grants that same year.⁵⁸

Local governments also have the ability to create local revenue sources to supplement 911 revenues. Many PSAPs are directly incorporated within local law enforcement agencies. Many law enforcement agencies already charge a fee to generate copies of reports. A similar fee for copies of 911 recordings or radio traffic, for example, could bring in additional funding. As there

can be significant differences between individual agencies, each agency would need to evaluate the benefits and drawbacks of any potential fee. There may also be political concerns about implementing additional fees since local elected officials may legally be required to approve them.

While these are possible options to bring in additional funds, properly managing revenues and expenditures in an agency budget remains a vital tool for individual PSAPs. Proactive budgeting will allow agencies to make the most out of their revenues. Agency leaders should carefully review past budget expectations and results to familiarize themselves with budget realities for their agency. If an expenditure trend – such as rising maintenance or overtime costs – is discovered, the trend can be accounted for in the budget. Once made aware of it, an agency can also actively work to minimize the expenditure.

Conclusion

Total 911 service costs continue to rise over time, and federal, state, and local authorities involved in provided emergency services must respond to these increases. Revenues generated from 911 fees and surcharges have not been rising at the same rate as service costs. Government representatives at all different levels must work together toward the goal of reducing this funding gap.

Federal, state, and local governments each have the ability to improve 911 service funding. At the federal level, Congress can modify the funding framework to encourage new sources of revenue and can also provide additional grant funding both to states and to local PSAPs. At the state level, state legislatures can pass legislation increasing 911 fees and surcharges to bring in additional funding. At the local level, municipal governments can consider applying for grants, creating local revenue streams, and proactively budgeting their 911 revenues. These combined actions would help significantly reduce the current funding gap for 911 services.

Notes

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² Ibid.

³ Ibid.

⁴ Ibid.

⁵ “911 and E911 Services,” Federal Communications Commission, accessed April 17, 2019, <https://www.fcc.gov/general/9-1-1-and-e9-1-1-services>.

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⁷ “911 and E911 Services,” FCC.

⁸ FCC, *Tenth Annual Report to Congress on State Collection and Distribution of 911 and Enhanced 911 Fees and Charges*: 3.

⁹ Ibid., 13.

¹⁰ Ibid., 2.

¹¹ Ibid., 3.

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- ¹² Ibid., 5.
- ¹³ Ibid., 5.
- ¹⁴ Ibid., 17.
- ¹⁵ Ibid., 17.
- ¹⁶ Ibid., 20.
- ¹⁷ Ibid., 31.
- ¹⁸ Ibid., 91-93.
- ¹⁹ Ibid., 91-93.
- ²⁰ Ibid., 93.
- ²¹ Ibid., 36.
- ²² Elaine Seeman, James E. Holloway, James Kleckley, and Frederick Nisander, "The First Step in Modernizing Our 911 Emergency Call Centers: Revising the State Enhanced (E) 911 Legislative Funding Scheme to Efficiently Distribute 911 Funds," *Journal of Law, Technology & the Internet* Vol. 2 (2012): 292, accessed March 12, 2019.
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Survey, January-June 2018: 1, by Stephen J. Blumberg and Julian V. Luke, December 2018, accessed April 23, 2019, <https://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201812.pdf>.

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³⁵ FCC, *Tenth Annual Report to Congress on State Collection and Distribution of 911 and Enhanced 911 Fees and Charges*: 10.

³⁶ *Ibid.*, 10.

³⁷ *Ibid.*, 11.

³⁸ *Ibid.*, 13.

³⁹ *Ibid.*, 31.

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⁴² *Ibid.*, 17.

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⁴⁴ *Ibid.*, 20.

⁴⁵ *Ibid.*, 4.

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⁴⁸ *Ibid.*, 125.

⁴⁹ *Ibid.*, 125.

⁵⁰ Elaine Seeman, et al, "The First Step in Modernizing Our 911 Emergency Call Centers: Revising the State Enhanced (E) 911 Legislative Funding Scheme to Efficiently Distribute 911 Funds," *Journal of Law, Technology & the Internet* Vol. 2 (2012): 292.

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⁵⁵ *Ibid.*, 575.

⁵⁶ *Ibid.*, 576.

⁵⁷ FCC, *Tenth Annual Report to Congress on State Collection and Distribution of 911 and Enhanced 911 Fees and Charges*: 36.

⁵⁸ *Ibid.*, 40.